

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANTS : Oleg Logvinov *et al.* CONF. NO.: 3556  
SERIAL NUMBER: 10/643,316 EXAMINER : Pham, Toan Ngoc  
FILING DATE : August 19, 2003 ART UNIT : 2612  
FOR : **Method and System for Maximizing Data Throughput Rate in a Power  
Line Communications System By Modifying Payload Symbol Length**

**Mail Stop RCE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants hereby make of record in this application U.S. Patent Nos. 4,715,045, 5,490,168, and 6,459,692. This Information Disclosure Statement is being filed before the mailing of a first Office Action after the filing of a request for continued examination (RCE). Accordingly, no fee or certification is required. 37 C.F.R. § 1.97(b)(4).

The cited references are listed on the attached Form PTO-1449 (submitted in duplicate). Pursuant to the U.S. Patent Office's waiver of 37 C.F.R. § 1.98(a)(2)(i), no copies of the cited references are enclosed. These references were cited in a search report in counterpart PCT Application No. PCT/US2003/025866. A copy of the search report is enclosed for the Examiner's convenience. It is respectfully requested that these references be: (1) fully considered by the Patent Office during prosecution of this application; and (2) printed on the face of any patent which may issue on this application. Applicants request that a copy of Form PTO-1449, as considered and initialed by the Examiner, be returned with the next communication to Applicants.

Applicants respectfully submit that claims 1-21, which were previously allowed by the Examiner and are currently pending in this application, are allowable over the cited references. Applicants also submit that new claims 22-40 added in the Preliminary Amendment filed concurrently herewith are also allowable over the cited references. To expedite this application to allowance, applicants provide the following distinguishing remarks. Applicants reserve the

right to provide additional distinguishing remarks at a later stage if necessary. The Examiner is urged to form his/her own conclusion regarding the relevance of the cited references.

All of independent claims 1, 16, 22 and 32 require, *inter alia*, the computing of a payload symbol length based on at least one of channel quality data and node configuration data. The independent claims also require the generating of a payload portion including at least one payload symbol of the computed length. For example, FIG. 6 of the present application shows a payload portion that includes N payload symbols, where each of the N symbols has a payload symbol length of Ts\_new. According to claims 1 and 16, the generated payload portion has a fixed, predetermined length that is equal to the length or sum of the lengths of the at least one payload symbol. According to claims 22 and 32, the payload portion is generated in accordance with a second PLC signal frame structure, and the length or sum of the lengths of the at least one payload symbol contained in the generated payload portion conforms to the maximum allowable length of the payload portion of a first PLC signal frame structure.

U.S. 4,715,045: this reference refers to a power line communication system (col. 9, ll. 34-39). It also describes that packets sent from a transmitter to a receiver can have a fixed or variable length (col. 19, l. 49 to col. 20, l. 7). However, assuming (without admitting) that such a packet could be compared to the "payload portion" of the independent claims, the '045 patent does not disclose or suggest the use of computable (selectable)-length payload symbol(s) within the payload portion.

U.S. 5,490,168: this reference does not specifically disclose power line communications networks. Additionally, the '168 patent describes the use of a variable-length packet (i.e., long packet or short packet; col. 3, ll. 25-56 and FIG. 2) with fixed-length codewords (i.e., 1 millisecond). Assuming (without admitting) that such a packet could be compared to the "payload portion" of the independent claims and that such a codeword could be compared to the claimed "payload symbol", this description in the '168 patent is contrary to the requirements of claims 1, 16, 22, and 32 that the length of payload symbol is selectable based on at least one of channel quality data and node configuration data.

U.S. 6,459,692: this reference refers to power line communications (col. 3, ll. 56-59). It also describes a frame structure that includes a voice section 101 (with associated voice channels 103-N) and a "non-required" data payload portion 102 (col. 3, ll. 1-26 and FIG. 1). Assuming (without admitting) that non-required payload portion 102 could be compared to the claimed


“payload portion”, the '692 patent does not disclose or suggest selecting a payload symbol length within the payload portion based on at least one of channel quality data and node configuration data, as required by independent claims 1, 16, 22, and 32.

In view of the foregoing, applicants respectfully submit that independent claims 1, 16, 22, and 32, and corresponding dependent claims 2-15, 17-21, 23-31, and 33-40, are allowable over the cited references. Accordingly, prompt consideration of the cited references and allowance of claims 1-40 are respectfully requested.

If for any reason the Examiner decides not to allow this application based on this submission, applicants' undersigned attorney and agent respectfully request a telephonic interview with the Examiner before the issuance of the next Office Action.

Respectfully submitted,

Dated: October 27, 2006

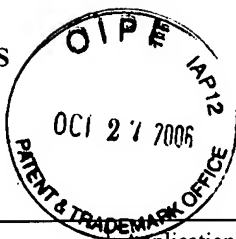


Richard G. Gervase, Reg. No. 46,725  
Peter F. Snell, Reg. No. 52,235  
Attorney/Agent for Applicants  
c/o MINTZ, LEVIN  
666 Third Avenue-24<sup>th</sup> Floor  
New York, New York 10017  
Telephone: (212) 935-3000  
Telefax: (212) 983-3115

Express Mail Label No.: EV873102121US  
Date of Deposit: October 27, 2006

Attorney Docket No.: 34585-509

Please type a plus sign (+) in this  
box



<b>Modified Form 1449/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)	Application Number	10/643,316
	Filing Date	August 19, 2003
	First Named Inventor	Oleg Logvinov
	Group Art Unit	2612
	Examiner Name	Pham, Toan Ngoc
	Attorney Docket Number	34585-509

**U.S. PATENT DOCUMENTS**

Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
	A1	4,715,045	December 22, 1987	Lewis, et al.			
	A2	5,490,168	February 6, 1996	Phillips, et al.			
	A3	6,459,692	October 1, 2002	Ben-Michael, et al.			

**U.S. PUBLISHED APPLICATION DOCUMENTS**

Exam Initials	Cite No.	U.S. Published Application No.	Published Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate

**FOREIGN PATENT DOCUMENTS**

Exam Initials	Cite No.	Foreign Patent Office	Document Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes No

**OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
Examiner Signature		Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

NYC 374368v.1